Rejection of Claims 15, 17-19, 21-25 and 27-31

Claims 15, 17-19, 21-25 and 27-32 were rejected under 35 U.S.C. §112, first and second

paragraphs. The claims were objected to as containing new matter. The applicants do not believe

that the claims contain new matter. More specifically the Examiner asserts,

> "there is no basis in the specification for determining melting ranges from a DSC
> spectrum using both heating and cooling , i.e., "heating/cooling rates of 20°C/min".
> The Examiner acknowledges that the specification teaches at page 14, [m]elting
> points, peak widths, melting ranges and crystallization temperatures were determined
> by DSC spectrometry (heating/cooling rates of 20°C/min)."

The applicants believe that page 14, lines 16-18 of the specification does teach that melting

ranges are determined at heating/cooling rates of 20°C/ min C. This information, together with his

knowledge that normally the thermal history is erased to obtain unambiguous material properties, is

sufficient for a person of ordinary skill in the art to repeat the measurement.

The language of the present application refers to a "broad, bimodal, or multimodal melting

range" and a "melting range maximum". As the applicants previously stated, the definition 2.2 in

the right column of page 1 of the enclosed ISO 3146 (published in 1985, prior to the filing date of

this application) discloses that a "melting range" is a temperature range, i.e. a temperature interval.

A span of temperature can neither have a maximum nor a bimodal or multimodal shape. This is only

possible for the curve in this interval. The portion of a DSC curve which departs from the baseline is

called "peak" (see definition 13.4 in the left column of page 6 of ISO 3146) wherein the baseline is

the portion or the portions of the DSC curve for which the heat flux is constant or, in other words,

which is obtained if the sample does not show a phase transition. Therefore, a person of ordinary

skill in the art automatically adds "peak" if he reads "maximum" or "bimodal or multimodal" in the

context of a DSC spectrum.

The Examiner, in paragraph 13 of his Office Action mailed September 6, 2002, states: "a bimodal or multimodal curve would clearly be representative of more than a single process...". The applicants respectfully disagree. A bimodal or multimodal curve would <u>clearly be</u> representative of a single process since the term "single process" as used in the note of point 13.4 of ISO 3146 is clearly understood by a person skilled in the art as one source of an exothermic or endothermic process, *e.g.* crystallization or melting (see also point 13.5 of ISO 3146). Further processes with a generation or consumption of heat could be a change of state, a chemical reaction, an adsorption or desorption process, etc. If such a process occurs in parallel to the melting, then it is no longer possible to talk about a "peak" in the sense of ISO 3146.

Since in the present case only one process, *i.e.*, melting, occurs, only one "peak" results, which, however, can be bimodal of multimodal as discussed in the applicants previous amendment.

With respect to the 35 U.S.C. § 112, second paragraph rejection, claim 17 states that the DSC spectrum is determined with a heating/cooling rate of 20°C which is supported by page 14, lines 16 - 18 of the specification. This means to run first a heating/cooling cycle and then start recording the DCS curve (see paragraph 17.2.2 in the left column of page 8 of ISO 3146).

The determination of half width and quarter width is in the absence of any further information (as in the present case) only possible, but unambiguous, if the person of ordinary skill in the art follows logic and the pure definition of the ordinary meaning of the terms.

A peak is that portion of a DSC curve which departs from the baseline (definition 13.4 in the left column of page 6 of ISO 3146). The baseline is the portion or the portions of the DSC curve for which the heat flux is constant, i.e. where no phase transition occurs (definition 13.3 of ISO 3146).

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Since claim 17 states that the polyolefin molding composition has a melting range there .

must exist a peak in the DSC spectrum. This peak can be unimodal (broad melting range),

bimodal or multimodal, i.e. it can have one, two or more tips. However, since the definition of a

peak, in the absence of any further information, can only mean that part of the DSC curve which

is between the temperature where the DSC curve leaves the baseline and the temperature where

the DSC curve comes back to the baseline again, the whole portion of the DSC curve between

these two temperatures is unambiguously the melting peak, independently whether it has one,

two or more tips.

At the temperature where the distance, vertical to the temperature axis, between

interpolated baseline and the DSC curve is greatest (see definition 13.6 of ISO 3146) is the

maximum of the peak in the melting range (which has to be between 120 and 165 °C according

to claim 17).

Half width and quarter width are unambiguously determined at a distance from the

baseline which is half of the peak height in the maximum or which is a quarter of the peak height

in the maximum.

Therefore, it is the meaning of claim 17 is clear, if the melting peak has only one tip or, if

it has two or more tips, the valley between the tips is higher than half of the peak height in the

maximum. Then half width and quarter widths are the distances between those points where the

parallels of the baseline in the respective distances intercept with the DSC curve.

For the case that the valley between two neighbored tips is lower than half or even the

quarter of the peak height in the maximum, there exist at least two more intercepts with the DSC

curve. The logic then teaches that the width determined at half peak height (or quarter peak height)

is the sum of those distances where the DSC curve is above this distances, as in the above discussed

clear case, without the distances where the DSC curve is below this distance. Therefore, even in the most complicated case, the person of ordinary skill in the art knows how to determine its meaning. For the above reasons these rejections should be withdrawn.

Rejection Of Claim 32

Claim 32 was rejected under 35 U.S.C. §112, fourth paragraph. Claim 17 can have a melting range that is (a) broad, (b) bimodal or (c) multimodal. Claim 32 is only a broad melting range. Therefore claim 32 further limits claim 17. For the above reasons, this rejection should be withdrawn.

Double Patenting Rejection

Claims 15, 17-19, 21-25 and 27-31 were rejected under the judicially created Doctrine of Obviousness-Type Double Patenting as being unpatentable over claims of Winter '866. The applicants are in the process of filing a Terminal Disclaimer which will obviate this rejection.
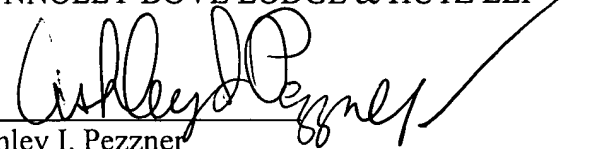
No additional fee is due. If there are any additional fees due in connection with the filing of this response, including any fees required for an additional extension of time under 37 C.F.R. 1.136, such an extension is requested and the Commissioner is authorized to charge or credit any overpayment to Deposit Account No. 03-2775.

For the reasons set forth above, Applicants believe that the claims are patentable over the references cited and applied by the Examiner and a prompt and favorable action is solicited. The applicants believe that these claims are in condition for allowance, however, if the Examiner disagrees, the applicants respectfully request that the Examiner telephone the undersigned at (302) 888-6270.

Respectfully submitted,
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